



State of Utah

Department of
Environmental Quality

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DIVISION OF AIR QUALITY
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DAQE-AN0041006-04

December 8, 2004

Patrick Clark
Staker & Parson Companies
P.O. Box 3429
Ogden, Utah 84409

Dear Mr. Clark:

Re: Approval Order: Administrative Amendment to Approval Order DAQE AN0041005-04 for
Correction of PM₁₀ Stack Testing Limitation, Box Elder County – CDS SM; ATT; NSPS, HAPs,
TITLE V Minor Project Code: N0041-006

The attached document is the Approval Order (AO) for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Jon Black. He may be reached at (801) 536-4047.

Sincerely,

Richard W. Sprott, Executive Secretary
Utah Air Quality Board

RWS:JB:re

cc: Weber Morgan Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**APPROVAL ORDER: Administrative Amendment to Approval
Order DAQE AN0041005-04 for Correction of PM₁₀ Stack Testing
Limitation**

**Prepared By: Jon Black, Engineer
(801) 536-4047
Email: jlblack@utah.gov**

APPROVAL ORDER NUMBER

DAQE-AN0041006-04

Date: December 8, 2004

**Staker & Parson Companies
Source Contact
Patrick Clark
(801) 409-2415**

**Richard W. Sprott
Executive Secretary
Utah Air Quality Board**

Abstract

Staker & Parson Companies has submitted a request to amend their current Approval Order (AO) DAQE-AN0041005-04. The requested amendment is to correct the current TSP and PM10 stack testing Limitations (Condition #12 of the above referenced AO). The values currently listed in Condition #12 were incorrectly entered into this permit and are not the correct stack testing limitations, which were evaluated and approved through the Division of Air Qualities modeling procedures. This site is located in Box Elder County, which is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS) 40 CFR 60 Subpart I (Standards of Performance for Hot Mix Asphalt Facilities) and Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) regulations apply to this source. National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT) regulations do not apply to this source. Title V of the 1990 Clean Air Act applies to this source.

Emissions will remain unaffected by this amendment. The controlled potential to emit emissions will be as follows, in tons per year: PM₁₀ = 22.04, NO_x = 67.32, SO₂ = 16.05, CO = 57.60, VOC = 8.47, HAPs = 0.80.

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307), and the Utah Air Conservation Act. A public comment period was not required for this project. This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

1. This Approval Order (AO) applies to the following company:

<u>Site Office</u>	<u>Corporate Office Location</u>
Staker & Parson Companies 33 South 900 East Brigham City, Utah 84302	Staker & Parson Companies P.O. Box 3429 Ogden, Utah 84409
Phone Number:	(801) 409-2415
Fax Number:	(801) 731-8800

The equipment listed in this AO shall be operated at the following location:

33 South 900 East, Brigham City, Box Elder County

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4,595.5 kilometers Northing, 416.7 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.
5. All records referenced in this AO or in applicable NSPS and/or NESHAP and/or MACT standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for the following minimum periods:
 - A. Used oil consumption Three years
 - B. Emission inventories Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.
 - C. All other records Two years
6. Staker Parson Companies shall install, operate and conduct its operations of the aggregate and asphalt production plants in accordance with the terms and conditions of this AO, which was written pursuant to Staker Parson Companies' Notice of Intent submitted to the Division of Air Quality (DAQ) on July 20, 2004.
7. This AO shall replace the AO (DAQE-AN0041005-04) dated July 16, 2004.
8. The approved installations shall consist of the following equipment or equivalent*:

Aggregate Plant:

- A. One (1) Remco VSM90 Impact Crusher SN 41-010, Mfg 1997*
- B. One (1) Cedarapids 54RCII Cone Crusher, SN 41-426, Mfg 1997*
- C. One (1) Cedarapids 54RCII Cone Crusher, SN 41-475, Mfg 1997*
- D. One (1) Cedarapids 54RCII Cone Crusher, SN 41-445, Mfg 2000*
- E. One (1) Cedarapids 6' x 20' Triple Deck Screen, SN 43-475, Mfg 1997*
- F. One (1) 6' x 20' Triple Deck Screen
- G. One (1) Power Screen, 250 ton per hour
- H. One (1) El Jay 6' x 20' Triple Deck Screen, SN 43-471, Mfg 1996*
- I. One (1) El Jay 6' x 20' Triple Deck Screen, SN 43-484, Mfg 1999*

- J. One (1) Caterpillar 1,600 kw Diesel Generator, SN 21-001, Mfg 1998*

Asphalt Plant:

- K. One (1) Cedarapids, Hot Batch Mix Asphalt Plant, SN 46-403*
- L. One (1) Aeropulse Baghouse, 684-10, 45,000 ACFM*
- M. Two (2) Liquid Asphalt Storage Tanks, 25,000 Gallons each
- N. One (1) Asphalt Storage Silo, 250 ton
- O. Five (6) Cold Feed Bins
- P. Miscellaneous equipment to include conveyors, front-end loaders and water and haul trucks.

* Equivalency shall be determined by the Executive Secretary.

9. The baghouse shall control process streams from the asphalt plant drum. This baghouse shall be sized to handle at least 45,000 ACFM for the existing conditions. All exhaust air from the drum shall be routed through the baghouse before being vented to the atmosphere.
10. A manometer or magnehelic pressure gauge shall be installed to measure the differential pressure across the baghouse. Static pressure differential across the fabric filter shall be between 2 to 6 inches of water column. The pressure gauge shall be located such that an inspector /operator can safely read the indicator at any time. The reading shall be accurate to within plus or minus 1.0 inches water column. The instrument shall be calibrated according to the manufactures instructions at least once every 12 months.

Limitations and Tests Procedures

11. Emissions to the atmosphere from the indicated emission point shall not exceed the following rates and concentrations:

Source: Hot Mix Asphalt Plant Baghouse Exhaust Stack

<u>Pollutant</u>	<u>lb/hr</u>	<u>grains/dscf</u> (68 degrees F, 29.92 in Hg)
TSP	7.87	0.030
TSP (RAP) ²	9.19	0.035
PM ₁₀	5.40	0.024
PM ₁₀ (RAP)	6.30	0.028

² RAP - Recycle Asphalt Pavement

12. Stack testing to show compliance with the emission limitations stated in Condition #11 shall be performed as specified below:

A.	<u>Emission Point</u>	<u>Pollutant</u>	<u>Testing Status</u>	<u>Test Frequency</u>
	Drum exhaust passing through baghouse	TSP (virgin and RAP)	*	#
		PM ₁₀ ** @ (virgin and RAP)		

B. Testing Status (To be applied above)

- * Initial compliance testing is required. The initial test date shall be performed as soon as possible and in no case later than 180 days after the start up. Compliance testing shall not be required for both virgin and recycle materials during the same testing period. Testing shall be performed for the product being produced during the time of testing.
- ** Initial test is not required unless directed otherwise by the Executive Secretary.
- # Initial test is required. Subsequent tests shall only be performed for PM₁₀.
- @ Test every five years or sooner if directed by the Executive Secretary. Tests may be required if the source is suspected to be in violation with other conditions of this AO. Compliance testing shall not be required for both virgin and recycle materials during the same testing period. Testing shall be performed for the product being produced during the time of testing.

C. Notification

At least 30 days prior to conducting any emission testing required under any part of UAC, R307, the owner or operator shall notify the Executive Secretary of the date, time and place of such testing and, if determined necessary by the Executive Secretary, the owner or operator shall attend a pretest conference. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary. The pretest conference shall include representation from the owner/operator, the tester, and the Executive Secretary. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and

Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

D. PM₁₀

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM₁₀.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using the method specified by the Executive Secretary. The portion of the front half of the catch considered PM₁₀ shall be based on information in Appendix B of the fifth addition of the EPA document, AP-42, or other data acceptable to the Executive Secretary.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

E. TSP

40 CFR 60, Appendix A, Method 5

F. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2

G. Calculations

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation.

H. New Source Operation

For a new source/emission point, the production rate during all compliance testing shall be no less than 90% of the production rate listed in this AO. If the maximum AO allowable production rate has not been achieved at the time of the test, the following procedure shall be followed:

- 1) Testing shall be at no less than 90% of production rate achieved to date.
- 2) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum

allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

- 3) The owner/operator shall request a higher production rate when necessary. Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum AO production rate is achieved.

I. Existing Source Operation

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

13. The amount of recycle asphalt used in the asphalt production shall not exceed 40% of the total product at any time. Compliance shall be determined by the actual hourly production of the plant divided by the hourly amount of recycle product introduced to the plant. Daily records maintained on site shall include:
 - A. Total production
 - B. Amount of recycled asphalt used in the total production
 - C. Daily calculations of the percent recycle used in the total production
14. Visible emissions from the following emission points shall not exceed the following values:
 - A. All crushers - 15% opacity
 - B. All screens - 10% opacity
 - C. All baghouse emission stacks – 10% opacity
 - D. All storage silos – 10% opacity
 - E. All conveyor transfer points - 10% opacity
 - F. All diesel engines - 20% opacity
 - G. Conveyor drop points - 20% opacity
 - H. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

15. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary or the Executive Secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity

readings shall be made ½ vehicle length or greater behind the vehicle and at approximately ½ the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.

16. The following operating limits shall not be exceeded:
 - A. 2,000,000 tons of processed 3 aggregate production per rolling 12-month period
 - B. Aggregate plant operation shall take place between the hours of 6:00 am and 10:00 p.m.
 - C. 200,000 tons of asphalt production per rolling 12-month period
 - D. Asphalt plant operation shall be limited to 16 hours per day
 - E. 140,000 gallons of fuel consumed by the 1,600 kw diesel generator per rolling 12-month period

To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of production/consumption shall be kept for all periods when the plant is in operation. Production shall be determined by scale house records or vendor receipts. The records of production/fuel consumption in diesel generator shall be kept on a daily basis. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log.

Roads and Fugitive Dust

17. The facility shall abide by all applicable requirements of R307-205 for Fugitive Emission and “Fugitive Dust sources. However, to be in compliance, this facility must operate in accordance with the most current version of R307-205.
18. All haul roads used to haul products off-site shall be paved. The haul roads shall be swept and washed to minimize fugitive emissions and ensure that the opacity limitations of Condition #14 of this AO are not exceeded.

Fuels

19. The owner/operator shall use #1 or #2 fuel oil as fuel for on-site equipment. The asphalt plant shall use natural gas, liquid propane fuel, fuel oil or on-specification used oil as a fuel source.
20. Sources burning used oil for energy recovery shall comply with the following:
 - A. The concentrations/parameters of contaminants in any used oil fuel shall not exceed the following levels:

3 Processed is defined as passing through a crushing or screening device prior to product delivery.

- 1) Arsenic.....5 ppm by weight
- 2) Cadmium.....2 ppm by weight
- 3) Chromium..... 10 ppm by weight
- 4) Lead.....100 ppm by weight
- 5) Total halogens.....1,000 ppm by weight
- 6) Sulfur.....0.5 percent by weight

- B. The flash point of all used oil to be burned shall not be less than 100 °F.
- C. The owner/operator shall provide test certification for each load of used oil fuel received. Certification shall be either by their own testing or test reports from the used oil fuel marketer. Records of used oil fuel consumption and the test reports shall be kept for all periods when the plant is in operation. Records shall be made available to the Executive Secretary or the Executive Secretary's representative upon request. The records shall include the three-year period prior to the date of the request.
- D. Used oil that does not exceed any of the listed contaminants content may be burned. The owner/operator shall record the quantities of oil burned on a daily basis.
- E. Any used oil fuel that contains more than 1000 ppm by weight of total halogens shall be considered a hazardous waste and shall not be burned in the asphalt plant. The oil shall be tested for halogen content by ASTM Method D-808-81, EPA Method 8240 or Method 8260 before used oil fuel is transferred to the asphalt plant fuel tank and burned.
- F. Sources utilizing used oil as a fuel shall comply with the State Division of Solid and Hazardous Waste in accordance with R315-15, UAC.

Federal Limitations and Requirements

21. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18 (General Provisions), Subpart OOO, 40 CFR 60.670 to 60.676 (Standards of Performance for Nonmetallic Mineral Processing Plants) and Subpart I, 40 CFR 60.90 to 60.93 (Standards of Performance for Hot Mix Asphalt Facilities) apply to this installation.

Records & Miscellaneous

22. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and

maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.

23. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.
24. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

<http://www.airquality.utah.gov>

The annual emissions estimations below include point source, fugitive emissions, fugitive dust, road dust, tail pipe emissions and grandfathered emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Controlled Potential To Emit (PTE) emissions for this source (the entire plant) are currently calculated at the following values:

	<u>Pollutant</u>	<u>Tons/yr</u>
A.	PM ₁₀	22.04
B.	SO ₂	16.05
C.	NO _x	67.32
D.	CO	57.60
E.	VOC	8.47
F.	Total HAPs	0.80

Approved By

Richard W. Sprott, Executive Secretary
Utah Air Quality Board